

Food control improvements : strengthening good hygienic practices



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CIRAD

- French agricultural research center working in international cooperation for development
- Research unit on tropical food quality
- 25 researchers in Madagascar: forestry, agronomy, technical assistance...
- Regional cooperation (La Réunion, Mayotte, Comores...)



University of Antananarivo

- Dept. of Fundamental and Applied Biochemistry
- 3 labs: Nutrition, Microbiology and Toxicology
- Projects on infantile nutrition, food processing, food safety, activities of plant extracts...



Pôle d'Excellence Régional-AUF

- « Valorization of the vegetal biodiversity of Madagascar and Comores for food safety : screening of bioactive molecules »
 - University of Antananarivo, Cirad Madagascar (URP Forêt, UMR Qualisud), Fofifa, Cnarp, Essa, universities of Comores and Réunion



CORUS

- “Sanitary and nutritional qualities of cress supplying Antananarivo: diagnoses and conditions of their technical, socio-economic and institutional improvements”
 - University of Antananarivo, Cirad (UPR Arena, UMR Qualisud), Ird, Inra, Essa, Institut Pasteur



Alternatives to antibiotics

- Research for alternatives to antibiotics in aquaculture (shrimps), using essential oils from endemic plants of Madagascar



Food control management

Food safety → Food security

- Protect public health: food-borne illnesses
- Protect consumers: unsanitary or adulterated food
- Contribute to economic development: consumer confidence



Food control management

- Based on risk analysis / integrated farm-to-table approach
- Mandatory: legislation, regulations, inspections, microbiological criteria...
- Voluntary: GAPs, GMPs, GHPs, Haccp



Challenges

- For national food control systems to ensure safe food for domestic consumers
- To meet international SPS requirements for food export (pathogens, pesticides, mycotoxins...)



Weaknesses (SWOT)

- Lack of legislation
- Confusion/overlap in roles and mandates of various agencies
- Lack of coordination/transparency
- Decision-making processes not based on risk
- Incoherent approach
- Limited capacity to integrate science
- **Inadequate data collection/analysis**



Testing facilities challenges

- Lack of maintenance and repair services for equipment
- Lack of trained lab staff
- Lack of appropriate testing equipment
- Inadequate budget
- Not sufficient local demand
- Lack of accreditation



Microbiological criteria

- Compliance to SPS measures
- Sampling plans (n , c , m , M): never guaranty the absence of pathogen/compliance of all units of the batch
- Identify the **major non-compliance** towards hygiene or manufacturing, but not the minor
- Analytical limitation



Food control

- Lab testing is used as the major technical base to accept a food
- Exporting commodities (UE regulation N°882/2004 on official controls)
- No analysis for local market (microbiology, chemistry) means no control



Food control

- Upgrading capacity building
- Need for a continuous effort to:
 - Prevent contamination
 - Avoid or reduce microorganisms development
- Importance of hygiene practices
- Complementary approach strengthening hygiene practices, using analysis for validation



Good hygiene practices

- Training and promoting awareness on GHPs among producers and **consumers**



Good hygiene practices manuals

- Tools and methods for food safety
- Adapted to a branch or a product
- Adopt a Haccp approach
- Supported and validated by governmental or public body
- Checking GHPs implementation
- Validation of the efficiency on microbiological quality



Strengthening GHPs

Advantages:

- Responsibility of **every one** handling the product
- Consultation between stakeholders
- GHPs monitoring
- Microbiological criteria assessement